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Method For Preventing Photoresist Poisoning In Semiconductor Fabrication

Abstract

A method for photolithographic patterning in a via-first dual damascene process involving the use of a low-K dielectric material as an insulation layer on a wafer substrate during the fabrication of an integrated circuit is described. The method includes filling an aperture etched into an insulation layer on a wafer substrate with a fill-in material for isolating the insulation layer from a photoresist layer deposited thereafter and depositing a photoresist layer on the insulation layer. The method further includes exposing and developing the photoresist layer for providing a photoresist mask pattern for subsequent etching of the insulation layer; and removing the fill-in material from the aperture.